

FIG. 1

In the refined feature space, sort all the vectors ψ_i in ascending order using \sim 201 distance defined by Eq. 4. Initialize all the vectors as unclustered vectors, and set cluster counter C = 1Among the unclustered vectors, select the one that is closest to the origin as ~ 202 the seed to form cluster S_c. Set the average internal distance of the cluster $R(S_c) = 0$, and frame command $P_c = 1$ For each unclustered vector ψ_i calculate its minimum distance to cluster S_c : \sim 203 $d_{\min}(\psi_i, S_c) = \min D(\psi_i, \psi_k)$ $\psi_k \in S_c$,204 Yes No C = 1?20,5 207 $R(S_c) = 0$ $R(S_1) = 0$ $INF(S_c) < INF(S_i)$ or $d_{min}(\psi_i S_1) / R(S_1) < 5.0?$ $d_{min} (\psi_i S_c) / R(S_c) < 2.0?$ No No 206 208 Yes Yes Add frame ψ_i to cluster S_1 Add frame ψ_i to cluster S_c Are there No 210 unclustered points? 209 Terminate the operation Yes √211 Increment cluster counter C by 1 FIG. 2

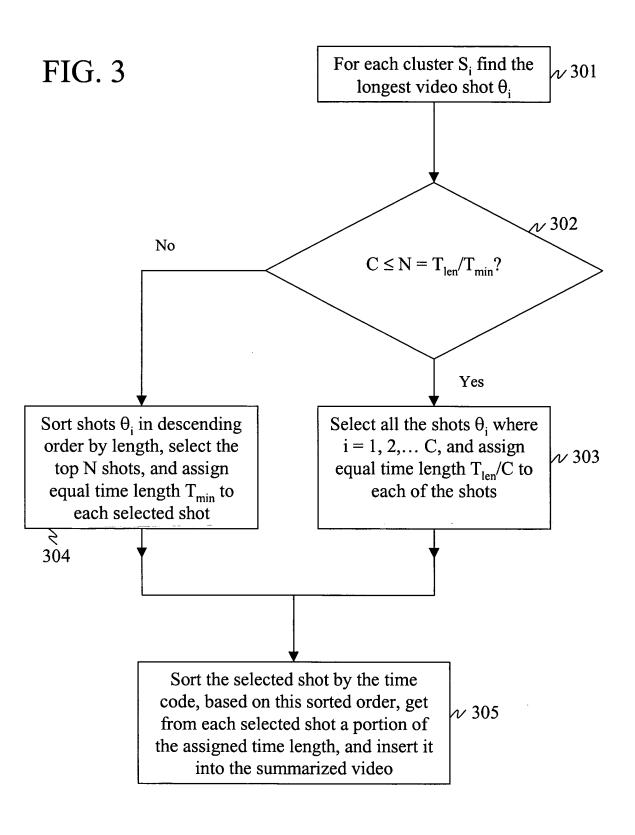


FIG. 4

